

## ITM Associates solution gives patient data a clean bill of health at Houston-area hospital



### Overview

■ **IBM Business Partner:**

*ITM Associates, Inc.*

■ **Customer:**

*St. Luke's Community Medical Center – The Woodlands is an 84-bed hospital in southeast Texas*

### Business Challenge

St. Luke's Episcopal Health System is a comprehensive health system that was established by the Episcopal Diocese of Texas. The System includes the flagship St. Luke's Episcopal Hospital in the Texas Medical Center, St. Luke's Episcopal Health Charities, St. Luke's Community Health Services, KS Management Services, LLP, and St. Luke's Community Medical Center (CMC)–The Woodlands. St. Luke's Episcopal Hospital is home to the Texas Heart Institute. The Texas Heart Institute at St. Luke's is consistently ranked in the top 10 cardiovascular centers in the United States by U.S. News & World Report.

The System's latest addition, St. Luke's Community Medical Center (CMC) – The Woodlands, opened its doors in April 2003. The 84-bed not-for-profit hospital includes an emergency department, newborn

and infant nurseries, diagnostic imaging services, and labor and delivery rooms.

When St. Luke's Episcopal Health System began planning for the new CMC, a key priority was to move its paper forms to an online environment and manage them more efficiently. As hospital executives began to assess requirements in December 2002, they quickly realized the formidable challenge they faced. St. Luke's was a full-service hospital with nearly 1,000 unique forms that would need to be electronically converted before the center opened.

"The costs of managing paper forms were too high, but once we realized how overwhelming the job was to convert to electronic forms, we knew it simply was not possible for the two people assigned from our IT organization to convert each form in less than four months," says Patti Roth, senior analyst, St. Luke's Episcopal Health System.

*"With the ITM solution and Lotus Domino, we were able to meet our goal of moving almost 400 forms online in less than three months."*

## Solution

With a limited budget for both implementation and training, a small IT team and only a few months time, St. Luke's found what it needed from IBM Business Partner ITM Associates, Inc. and its PDF inFusion eForms solution.

This enabled St. Luke's to quickly and easily convert its existing paper forms to populate an electronic forms management system. Using IBM Lotus Domino®, the solution seamlessly integrates data from across the enterprise – including St. Luke's extensive patient information database – into Web-based forms that are intuitive and collaborative.

In only 60 days, St. Luke's technology team implemented all the needed forms online, with Java™ servlet development and training support from ITM. The process yielded an unexpected benefit: the team reduced duplication of forms between departments, resulting in a need for only 400 of the original 1,000 forms. Previously, even a minor change would require a new paper form, but basic online forms can now easily be modified for each department to reduce redundancy.

“Before we found ITM Associates, we estimated that the project would take us a year to complete because most applications would allow us to convert only one form every two days,” says Roth. “But with the ITM solution and Lotus Domino, we were able to meet our goal of moving almost 400 forms online in less than three months.”

With the previous system, the staff used plastic cards containing patient demographic information and high-maintenance embossing machines to print each patient's information onto the relevant forms. The new

solution stores patient demographic information and forms online, allowing the patient care staff to quickly and easily select the needed forms, dynamically populate them from the patient information system up front, and then print them.

## Overcoming User Resistance

The next challenge was to train 300 staff members. There was significant resistance from groups such as the nursing staff, who wanted to focus on helping patients, not learning new technology. However, since the solution combines the familiar look of the old paper forms with sophisticated client-side data validations, calculations and user interface enhancements, the response was overwhelmingly positive when the solution was deployed the week before the hospital opened.

“I was concerned about my staff getting bogged down with technology that would prevent them from taking care of our patients' needs,” said Jackie Anderson, assistant vice president, Patient Care, CMC – The Woodlands. “I was pleasantly surprised that the system was intuitive and extremely easy to use – and it actually saves us time.”

## Meeting Regulatory Standards

St. Luke's medical records department has also seen several benefits with the new system. Stacks of outdated blank forms have been replaced by online forms that are easily updated hospital-wide, helping the CMC remain compliant with regulatory requirements. In addition,

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the ability to store and manage patient information electronically enhances the hospital's ability to comply with HIPPA regulations and ensure patient privacy.

Another key benefit is the reduction of human error. With the previous system, embossing machines produced forms that were hard to read, resulting in misfiled documents and incorrect data entry. According to industry estimates, there is typically a 1-2 percent misfiling rate with paper forms, which costs businesses an average of 20 cents for each misfiled page.

Using barcode technology to include patient data on each form and scanning technology to quickly upload patient information into databases, ITM Associates' solution reduces these errors, saving the hospital significant staff time.

In addition to eliminating the need to purchase and maintain costly embossing machines, the new system also eliminates the inconvenience to patients who were required to renew their card after 60 days of inactivity, and makes it faster for patients to complete forms in the waiting room.

## A Business Partner Committed to Open Standards

“ITM came out and trained us on the software, wrote custom code for us and was available for us 24/7 during our set-up of the application. I can't say enough good things about all the people at ITM who helped us make this successful,” says Roth.

St. Luke's also values the open, industry-standard solutions that ITM Associates provides. With an open solution, St Luke's was able to easily integrate its forms management system with existing patient databases. For ITM Associates, IBM's open, industry-standard middleware allowed the company to write the application one time for use on virtually any platform.

Building its solution on Lotus Domino and WebSphere® Application Server has been a major competitive differentiator and has given ITM a compelling value proposition to take to clients.

"Being able to provide an open platform as part of our solution is a priority for ITM Associates, which is why we chose IBM," said Ian Altman, president, ITM Associates. "For St. Luke's, it not only provides easy integration but also delivers industry-proven reliability and security. With Lotus Domino, they don't even have to think about the solution, it just runs."

Based in Rockville, MD, ITM Associates is an Advanced member of IBM Partnerworld® for Software and Partnerworld for Developers, and uses PartnerWorld programs such as developerWorks and ongoing training to continually extend its knowledge and deliver open platform solutions.

For more information on ITM Associates, visit [www.itmassociates.com](http://www.itmassociates.com) and to learn more about IBM PartnerWorld go to [ibm.com/partnerworld](http://ibm.com/partnerworld).



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